Lesson 4: Economic Principles of Agricultural Businesses

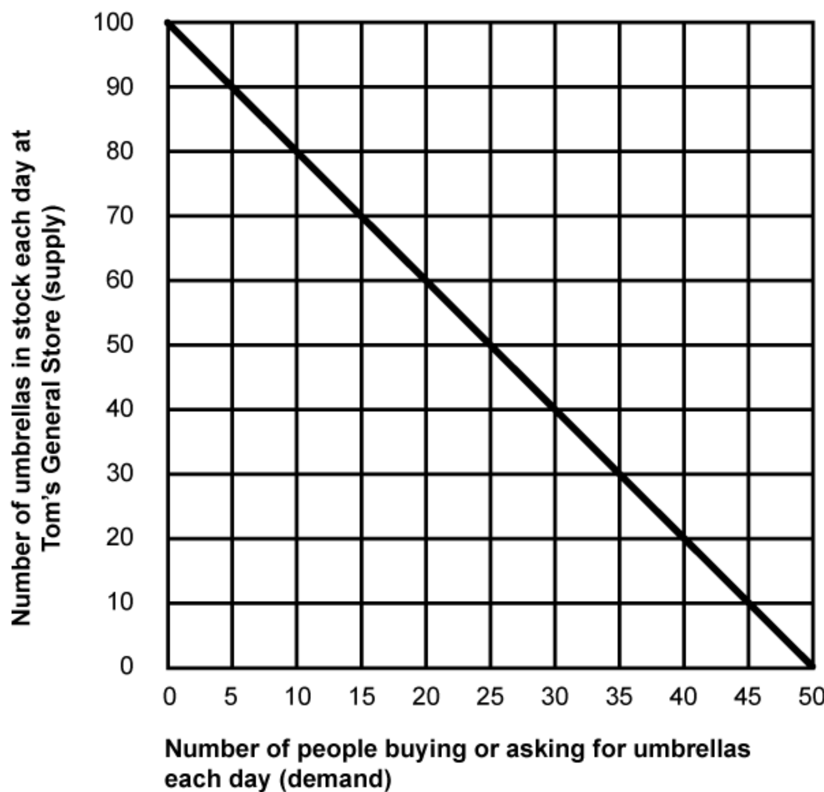
This lesson discusses basic economic principles affecting agricultural business: the relationship between supply and demand, the concept of opportunity costs, the difference between fixed and variable costs, and the difference between gross and net income.

Relationship between Supply and Demand

Supply is the amount of goods or services that producers are willing and able to sell at different prices at a given time and place. Price affects supply. If the price of a product decreases, then less of the product is supplied. This is because the producer may not realize as much of a profit on that product. If the price increases, more of the product is supplied. The producer may be able to realize more profit. Supply is also affected by demand. If consumers want more of a product at a given price (demand), the supply is increased. If consumers do not want a product at a given price, the supply is decreased.

Demand is the amount of goods or services that consumers are willing and able to buy at a given price at a specific time and place. Demand is also affected by price. If the price of a product decreases, more products will be bought. Consumers will benefit from purchasing goods at a lower price. As demand increases, supply may decrease because the quantity of available goods may decrease. If it rained for 2 weeks straight, then the demand for umbrellas would increase. This demand would cause a decrease in the supply of umbrellas because stores would be selling them as fast as possible. On the other hand, during a drought, people would have no use for umbrellas and the demand would be low. Because stores would not be selling very many, supply would be high. To see what this relationship looks like on a graph, refer to Figure 4.1.

Figure 4.1 - Supply and Demand of Umbrellas during Rainy Weather



Opportunity Costs

We are constantly making choices. Every time we decide to do something there are many options we decide against. In business, the difference between the return on an investment and the return on the next best alternative is called an opportunity cost. Agricultural businesses consider their opportunity costs when deciding what to buy or what actions they should take. In other words, opportunity cost is the value of the best alternative not selected.

In decision making, the opportunity cost is what you decided **not** to do. Every agricultural business, in balancing its limited sources of finances, land, and labor, must consider opportunity costs. The following example illustrates this concept. For the past 3 years, Joe worked part time at a farm equipment store and earned $433 annually. This year Joe wants to do something different, so he quit his part-time job. His opportunity cost is the $433 he used to earn every year at the farm equipment store.

Fixed and Variable Costs

All businesses, from small individually run companies to large corporations, have many types of expenses. Two ways of categorizing these expenses are fixed costs and variable costs.

Fixed Costs

Fixed costs are costs that remain constant regardless of the level of production. These include expenses that have to be paid regularly, such as depreciation, interest, repairs and shelter, taxes, and insurance. These costs may be referred to as ownership costs and are important to consider when completing budgets for both businesses and for individuals.

Variable Costs

Variable costs change according to the level of production or depending on the amount of time the resource is used. Examples include fertilizer, chemicals, seed, oil, inventory, salaries, payroll, supplies, advertising, utilities, telephone, and principal payment. These costs may also be referred to as operating costs.

Gross and Net Income

Income is very important for any business. If there is no income, a business eventually will have to close or declare bankruptcy. It is important for a business to accurately record its income so it can stay within a budget and so it will know how much income tax it will owe at the end of the year.

Gross income is the total amount received after selling a product or performing a service. Gross income does not consider any deductions for supplies, labor, etc., or any operating expenses.

Net income is the actual amount gained from a service or product after all production and operating expenses have been subtracted. Personal net income is calculated by subtracting all payroll deductions from the gross income. Examples of standard personal payroll deductions include Social Security, state and local taxes, and health insurance. An employee's net income must also deduct individual expenses such as rent, utilities, food, and life insurance.

When calculating the net income of an agricultural business, that company considers many factors: their employee payroll, any operating and production costs, phone, electricity, etc. An example would be if a salesperson sells a tractor for $250,000. But the company does not make that amount. It must subtract all expenses that have gone into selling the tractor, such as the cost of making the tractor, the salesperson's salary, shipment of the tractor, cost of phone and electricity, and future service if there is a warranty.

Summary

Those involved in agricultural business should understand the basic economic principles affecting the industry such as the relationship between supply and demand and the concept of opportunity costs. They should also be aware of the definitions of fixed and variable costs and how gross income differs from and net income.

Credits:

Agribusiness Sales, Marketing & Management (Instructor Guide). University of Missouri-Columbia, Instructional Materials Laboratory, 1997.

"Introductory Economics Revision Notes: Supply and Demand." <http://www.bized.ac.uk/stafsup/options/notes/econ207.htm> (1-5-01)